REMARKS

Claims 1, 2, 4, 5, 9, 10, 12, 15, 16, 20, 28-30 and 32-34 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hirsch in view of Dahlke et al and Andonovic et al. Claims 3 and 14 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hirsch in view of Dahlke et al and Andonovic et al. as applied to claims 1 and 12, and further in view of Beaumont. Claims 21 and 22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hirsch in view of Dahlke et al and Andonovic et al. as applied to claim 12, and further in view of Bell.

The Examiner has allowed claims 24-27 and noted the allowability of claims 6-8, 11, 17-19 and 23 if rewritten to include the base claim and any intervening claims.

Claim 17 has been amended to correct a typographical error.

Hirsch (U.S. Patent No. 4,479,112, hereafter Hirsch) is relied on for teaching most of the claimed elements, including an optical controller comprising an eyepiece, an interior portion of a housing viewable through the eyepiece, a plurality of lights of different color, a processor, a user response sensor, a memory and a comparator circuit. Applicants disagree with this characterization of Hirsch.

Hirsch discloses a secure keyboard terminal in which "a secret user identification code number or other confidential data sequence formed from a set of alphanumeric characters (for example, the ten numerical digits 0 through 9) may be input secretly by a user". (Abstract, lines 1-5, emphasis added). As disclosed, a display of alphanumeric keys are provided in such a way as to limit the viewability of the keys, for example by providing key buttons with opaque walls and a transparent central bore, thus requiring a person to be directly above the display character to view the character. (Column 2, line 64 – column 3, line 2). The alphanumeric characters are randomly assigned to the keyboard in order to prevent someone watching the user from determining the input confidential code (e.g., the number "3" could be located at any location within the keyboard as opposed to the common third key position). (Column 3, lines 62-65 and column 4, lines 50-60). A variety of user input means are disclosed in which pushbuttons are associated with each alphanumeric character. (Column 5, lines 15-30).

Hirsch clearly discloses an optical controller that can be used to input secret identification code numbers through the use of an alphanumeric keyboard and randomly assigned

characters. Hirsch does not, however, teach or disclose an optical controller in which the identification code is based on a sequence of colors rather than alphanumeric characters.

The present invention is clearly distinguishable from Hirsch as it discloses, and claims; a plurality of different colored lights that are sequentially pulsed in a predetermined light sequence, a user response sensor that allows the user to respond to specific light colors and a comparator that compares the user response with a predefined response. Thus, for example, the predefined response code may be a specific color sequence such as red, red, green, yellow. Hirsch does not disclose or suggest such a capability, rather Hirsch only discloses the use of alphanumeric characters. There are numerous benefits offered by the present invention that are not offered by the system disclosed in Hirsch. For example, a child or a person of limited mental ability might find it easier to memorize an identification code based on a sequence of colors rather than a code based on an alphanumeric sequence.

The Office Action notes that Hirsch teaches a plurality of lights of different colors, citing lights 532 and 534. (Column 17, lines 10-13). These lights, however, are simply "system state indicating lights", not lights that are associated with specific input keys or that are part of the secure input terminal. Therefore other than for emitting colored light, lights 532 and 534 bear no similarity to the presently claimed lights.

In addition to the above noted distinguishing features, Applicants further submit that the cited prior art does not teach or suggest several other claimed features. For example, all of the independent claims include the limitation of the processor sequentially pulsing each light of the plurality of lights in a predefined sequence. As described in the specification, the lights are sequentially pulsed and the user registers their response when the desired light is pulsed. For example, if the validation code is red, red, green, and the sequence of light pulsations is yellow, red, green, red, yellow, green, yellow, the user would respond (for example by pressing an accept button) after the 2nd, 4th, and 6th light pulses (i.e., the red, red, green light pulses). In contrast, Hirsch does not teach sequencing the alphanumeric characters (i.e., by lighting up the "1" character first, then the "4" character, then the "3" character, etc.). Rather, Hirsch only discloses generating an alphanumeric keypad in which the characters are randomly generated. All of the characters are provided to the user at any one time, although Hirsch discloses that these characters can be generated either each time the "start" button is pressed (see, for example, column 8, lines 26-30), each time a "rescramble" switch is activated (see, for example, column 8,

lines 60-6), or automatically when a predetermined number of characters has been entered or a predetermined period of time has elapsed (see, for example, column 8, line 63 – column 9, line 1).

The Office Action notes that Dahlke (U.S. Patent No. 6,456,414, hereafter Dahlke) teaches a plurality of lights which are sequentially pulsed in accordance with a predetermined sequence. Although Dahlke does teach controlling multiple light sources of different colors, such control is used to create two- and three-dimensional color moving pictures. (Column 2, lines 31-33). Dahlke does not even remotely suggest that light sources 12, 14, and 16 can be used along with controller 18 as an optical controller as presently disclosed and claimed. The Office Action does not provide any teaching, suggestion or motivation to replace the alphanumeric characters of Hirsch with the colored lights of Dahlke.

In order to avoid a hindsight-based obviousness analysis, the courts have held that there must be a clear showing of the teaching or motivation to combine the prior art references. See, for example, *C.R. Bard, Inc. v. M3 Sys., In.*, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998) (describing "teaching or suggestion or motivation [to combine] as an "essential evidentiary component of an obviousness holding"); or *In re Fine*, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988) (evidence of teaching or suggestion "essential" to avoid hindsight).

In the present situation, Applicants submit that there is no clear evidence of a teaching, suggestion or motivation to combine the colored lights used in the sequential color scanner of Dahlke with the secure keyboard input terminal of Hirsch. First, there is no clear suggestion in either of the cited references to combine the references as suggested in the Office Action. Second, the problems identified and solved by Dahlke (i.e., a sequential color scanner) are completely unrelated to the secure keyboard input terminal disclosed by Hirsch. Therefore Applicants submit that it would not have been obvious for someone to combine the inventions of Dahlke and Hirsch as suggested in the Office Action.

Hirsch discloses a secure keyboard that uses alphanumeric keys which are randomly assigned to the locations on a keyboard. There is nothing in Hirsch to suggest that the disclosed system would not be usable by anyone (e.g., children) or that a simpler system could be manufactured using colored lights. Nor is there anything in Hirsch to suggest that as opposed to presenting the user with a complete keyboard of characters, the characters could be "sequentially" presented to the user. Hence Applicants submit that there is no motivation to alter

Hirsch's disclosed input terminal and there is no suggestion to combine the color sources used in Dahlke's optical scanner in the completely unrelated input terminal of Hirsch.

In addition to the above-noted distinctions, Applicants further note that none of the cited art teaches or suggests a processor that registers the state of operation of a user response sensor for each light of a plurality of lights sequentially pulsed by the processor. The Hirsch system simply displays an entire keyboard in a randomized sequence and then determines if the correct character sequence has been input by the user. (Column 8, lines 31-53). The Hirsch system does not, however, monitor the user's response for each pulse of an alphanumeric character, much less each pulse of a colored light, since the Hirsch system does not sequentially pulse the keyboard characters. As Dahlke discloses a color optical scanner, it also does not disclose or suggest these aspects of the claimed invention.

In light of the above-noted distinguishing features that are neither taught nor suggested by the cited prior art, Applicants request the withdrawal of the rejection of claims 1-5, 9, 10, 12-16, 20-22 and 28-35 under 35 U.S.C. 103(a) as being unpatentable over Hirsch in view of Dahlke and Andonovic, or over Hirsch in view of Dahlke and Andonovic and in further view of either Beaumont or Bell.

In view of the above remarks, it is submitted that this application is now ready for allowance. Early notice to this effect is solicited. If in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned at (415) 393-2404.

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